

CONTROL OF GLYPHOSATE-RESISTANT CORN IN A CORN REPLANT SITUATION. Ryan M. Terry, Paul T. Marquardt, William G. Johnson and Mark Loux, Graduate Research Assistant, Research Associate and Professor, Department of Botany and Plant Pathology, Purdue University, West Lafayette, IN 47907, Professor, Department of Horticulture and Crop Science, The Ohio State University, Columbus, OH 43210.

Control of glyphosate-resistant (GR) corn in a replant situation with herbicides labeled for use in corn is difficult. In addition, little is known about the effect of poor initial stand on replanted corn yields. The study objectives were to evaluate the efficacy of various herbicides on an initial corn stand in a corn replant situation and to determine the impact of poor initial stand control on corn grain yield. In 2009, studies were conducted near Lafayette, IN and South Charleston, OH. The initial corn stand was planted May 23, 2009 at 79,000 seeds ha⁻¹. Three hybrid blends were planted consisting of 100% GR corn, 50/50 GR/non-GR blend and 25/75 GR/non-GR. Glyphosate was applied to create different corn populations at replant. A GR and glufosinate-resistant hybrid was replanted at 79,000 seeds ha⁻¹ on June 15, 2009. Clethodim applied six days before replanting, paraquat plus metribuzin applied two days after replanting, glufosinate applied two days after replanting, and glufosinate applied 2 days after replanting along with a sequential treatment three weeks after replanting provided 99 to 100% control of the initial corn stands.